A Growing Crisis: The Critical Deployment of Clean, Local Energy in New York

In 2015 Governor Cuomo announced the launch of expanded access to renewable energy for millions of New Yorkers, promising community solar and other forms of clean, local energy would unleash new investment and ensure "all New Yorkers, regardless of their zip code or income, have the opportunity to access clean and affordable power." The private sector responded—since then, dozens of developers have partnered with communities to develop and build local renewable energy projects, pouring millions of dollars into the statewide economy from Long Island to Buffalo and boosting clean energy jobs to record levels. Unfortunately, this optimism and progress was short-lived.

Problem

After a year and half of uncertainty, in March of 2017 the Public Service Commission replaced simple and predictable net energy metering rates with the inaccurate and complex Value of Distributed Energy Resources (VDER) policy. This shift dramatically slashed the value of solar and other clean energy technologies and brought economic development and investment to a screeching halt.

As a result of the VDER policy change, the state's three largest solar developers alone have cancelled the development of more than 175 community and commercial solar projects in the Upstate region, representing $811 million in lost investment and 602 MW of missed clean energy. On Long Island, communities stand to lose out on more than $100 million in local investment. In New York City, one in three residents cannot access community solar due to VDER's discriminatory policies for renters in certain types of high-rise buildings, reducing the solar market potential by roughly 3 million people or 15% of the state population. New York is no longer a top ten solar state and powers just 1% of its electricity sector with solar, compared with Massachusetts, New Jersey, and North Carolina all powering at 6% and California continuing to lead at over 17%.

Although a reasonable approach for valuing renewable energy, VDER has been a failure as the result of a flawed process and poor execution. It is costing the state jobs, economic development, and progress on climate change. We support adopting a more precise valuation of renewable energy; however, the current VDER policy does not fully and accurately value the many avoided costs and public benefits of solar, wind, hydro, and other local renewable resources, and it must do so for that approach to be used. Without the significant investment and deployment of these resources, New York will be unable to follow through on its commitment to lead on climate change and and protect New Yorkers in the coming decades, and provide universal access to clean, local energy. New York State must act now

Solutions

A coalition of clean energy businesses, community leaders, and grassroots organizations—all undersigned below—have come together to develop and present a set of unified solutions to rectify the current situation. These solutions are designed to immediately jumpstart the state's clean energy market and revive Governor Cuomo's goal to expand access to renewable energy to millions of New Yorkers. The first two sections speak to the urgency of the situation and should be implemented without further delay. The third section includes important near-term improvements for a nation-leading clean energy industry. If these solutions appear complex, they are so as a result of the even-more-so VDER policy.

Each day we wait to fix VDER is another day communities across the state are unable to take part in today's much needed clean energy revolution. The time is now.

Section I: Immediate Request

1. As the first critical step to provide market stability, immediately restore net metering as a temporary option per A.10474/S.08273, OR extend the current VDER Market Transition Credit (MTC) Tranche 1 to all customer classes without a cap through December 31, 2020.[1] All customer classes includes residential and commercial customers of community projects, master-metered buildings and municipalities, and commercial customers of on-site or individual remotely located projects. For setting the MTC, the residential retail rate over the past three years within each utility territory should be used as the reference point for all residential customers, and the non-demand commercial rate over the past three years should be used as the reference point for all commercial customers.

This step is essential to address the current market disruption and bring back cancelled investment while the work outlined in the second step is completed to correct and improve VDER values. As demonstrated below, additional net metering or an extended MTC is justified. Neither should be considered to be a subsidy—both serve as placeholders for significant values backed by rigorous analysis and not yet fully recognized in VDER**. Though not a subsidy, this step does have some near-term costs, but these are very small and will not have a significant impact on electric rates. We will share an up to date analysis of these costs in the near future. Unlike many of the other costs charged to ratepayers, the small costs associated with our proposal will provide very significant future cost savings to New Yorkers by reducing the increased taxes, healthcare costs, and degradation of quality of life and environment due to climate change and pollution that will continue to occur and worsen without the transition to clean energy.**

Section II: Concurrent 12-18 Month Request

2. **With the first step secure, complete and implement the following items in the next 12-18 months to create a long-term VDER solution.**

a. **Update the Environmental Value (E-Value) used in the VDER program in the below ways** so that it begins to approach a more accurate value for the greenhouse gas (GHG) emission reductions and other air and water pollution reductions provided by these clean renewable resources. Specifically do the following:

i. **For GHG Emissions and other pollution, continue to use a fixed E-value based on the minimum estimated damages** that these technologies avoid per ton of pollutant they eliminate. For GHG emissions, estimate damages per ton of CO_2 using the latest version of the US Interagency Working Group's Social Cost of Carbon (SCC) from 2016[2]. Though the SCC is just a starting point that underestimates of the damages likely to occur from climate change, it is an extensively reviewed and appropriate type of approach. New York could, in the future, undertake the creation of a GHG abatement cost curve for the state through 2050 as an alternative to improve the accuracy and possibly further minimize these prices, but using a single year or couple year average REC price today is not an accurate or appropriate alternative.

ii. **For GHG emissions, update and improve the state's selection of that value from the US EPA's SCC menu**. Because of the significant damages excluded and/or poorly quantified in the 3 climate models used to create the SCC[3], the low assumptions as to how quickly these damages can occur, and the inappropriateness of using a discount rate which devalues the impact of these damages on our children and grandchildren, **use the "High Impact (95th pct at 3%)" column of the current SCC menu**. This value is still likely to be significantly less than one based on improved models and an appropriate discount rate of 0-1%, but it is the most accurate of the numbers on the EPA's SCC current menu of reviewed and vetted options. In addition, there should be no additional discount rate applied to those annual values through 2042 when converting them into a present value as proposed by Staff in their March 2018 filing. As a result of these proposals and continuing to use the state average marginal avoided emissions rate, the E-value for renewable distributed resources in the VDER program would go from the current 2018 $0.027/kWh to $0.111/kWh. This value is well supported and most importantly, is a much lower cost to New Yorkers than they would pay if we allow these damages to continue to occur. It thus should not be thought of as an additional cost to ratepayers, but instead as a cost reduction.

iii. **For other air pollution and water pollution, add a second component to the E-value to account for the damages caused to human health and lost productivity. For the air pollution, this would specifically be due to the six EPA criteria air pollutants – particulate matter, NOx, SOx, ground-level ozone, carbon monoxide, and lead**. This value will serve to initially recognize the problem of these pollutants in urban areas across the state - both the human health harm (including respiratory disease) and impact on parents' productivity they cause - and credit distributed renewable energy technologies when they help to avoid these impacts. The recent work of the coalition led by the NYU Institute for Policy Integrity is a significant step in this direction. Using COBRA and EASIUR, the average value of the first three avoided local pollutants ranges on average from $0.003/kWh in Zone C to $0.14/kWh in Zone J, depending on the time of day and year. Additional analysis will need to be conducted on the remaining three air pollutants and water pollutants.

iv. **For the greater impacts of this air and water pollution on communities near electric generators due to their operation and the increased impacts resulting from peoples reduced ability to deal with them because of health-care and employment constraints, add a third component - an Environmental Justice (EJ) placeholder value - to the E-value** of all projects that displace the generators located in those areas. This value is only for additional damages beyond the first two values and should initially be $0.03/kWh as a placeholder to reflect that the effects on these communities are meaningfully worse than on communities in the larger geographic area. While this value is in place, extensive analysis should be conducted in collaboration with the Governor's Environmental Justice & Just Transition Working Group to better quantify these additional harms to replace this placeholder.

v. **Waive the CES (Clean Energy Standard) requirement that projects have to come into operation after January 1, 2015 in order to qualify for the E-value,** but continue to require that technologies using the VDER tariff must qualify for the CES in terms of being eligible technologies and that they must not have other existing contracts for the project's RECs.

b. **Update the Distribution and Transmission Value (D&T Value) used in the VDER program in a rigorous process following the below outline** so that it begins to approximate a more accurate value for the avoided infrastructure and other related costs that are provided by these clean renewable resources, and simultaneously provides a more predictable stable value:

i. Require improved Marginal Cost of Service studies from the utilities that use:
   - Standardized load forecasts consistent with state electrification expectations and climate goals
   - A standard minimum time horizon of 10 years
   - Include all peak load related avoided costs, additional non-peak load avoided costs, and long-run transmission value, and show these costs transparently

ii. Create a consistent rationale for dividing the above total avoided cost into LSRV (Locational System Relief Value) vs DRV (Demand Reduction Value)

iii. Require a standardized accurate conversion of LSRV and DRV values into MWac of different DERs needed

iv. Use the amortization period for the avoided cost as the compensation period and use a fixed payment rate during that period. For example, the current DRV value rate should have be fixed for 10 years instead of 3 years to align with the amortization of the avoided cost.

v. Improve the performance requirement by replacing the current 10 hours with the several hundred hours actually used for distribution planning via forward-looking probabilistic modeling given the uncertainty of when peak load will occur.

c. **Add a Low to Moderate Income (LMI) placeholder value to the VDER program** that is available to projects that have 30% or more of their electricity go to New Yorkers who meet the current NYSERDA LMI definition or Housing Authorities and other affordable housing providers that serve those customers. All of these customers pay into the System Benefit Charge and contribute to the Clean Energy Fund (CEF) at the same rates as other customers, but see limited access to clean energy opportunities and thus disproportionately fewer benefits. All New Yorkers would benefit from these customers being served by distributed clean energy resources, which can stabilize their costs and reduce other forms of current ratepayer and social costs associated with unaffordable energy bills including shut-off costs, uncollectibles, bill assistance programs, and increased homelessness and healthcare costs from extreme temperatures following shutoffs. Projects qualifying and opting to receive this value would be required to provide at least a 10% fixed discount to those customers. The placeholder value would be an adder equal to 30% of the applicable VDER Rate, but unlike the rest of the value stack, would be paid to the developer/project owner. While this placeholder value is implemented to address underserved areas and customers, a detailed study to better quantify this value should be conducted.

Section III: Additional Requests

3. **While steps one and two occur, bring promised soft costs improvements online**, especially consolidated billing, efficient electronic data exchange between DER providers and utilities regarding customer data and billing, and key additional binding interconnection upgrade construction timelines.

4. **While step one occurs, create a robust storage incentive program administered by NYSERDA as a placeholder value** while further work on storage's value in terms of capacity, functionality/reliability, and resiliency is completed. Storage is essential to the clean energy transition and deployment needs to start immediately.

5. **While steps one and two occur, undertake rate design reform for all commercial and residential customers in order to price consumption accurately in line with cost causation** and send proper market signals. Rate design reform will reduce usage during peaks and lower costs for everyone and should have been a predecessor to VDER.

6. While step two occurs, instruct DPS and other agencies to work with consultants to conduct a comprehensive study to quantify "permanent" EJ and LMI values.

We the below coalition of clean energy businesses, communities, and advocates strongly urge you to address this growing crisis immediately using the above solutions.

Nina Orville
Principal
Abundant Efficiency

Jessica Azulay
Executive Director
Alliance for a Green Economy

Emmett Smith
Principle
Azure Mountain Power

Adam Flint
Director of Clean Energy Programs
Binghamton Regional Sustainability Coalition
Binghamton, NY

TR Ludwig
CEO
Brooklyn Solar Works

Jeanne Bergman
Calculate Green, Inc.

Brian Eden
Vice-Chair
Campaign for Renewable Energy

Chris Carrick
Energy Program Manager
Central New York Regional Planning and Development Board

Amber Johnson
Community Organizer
Citizen Action of NY Southern Tier

Barbara Warren
Executive Director
Citizens' Environmental Coalition

Jen Metzger
Executive Director
Citizens for Local Power

Peter Wirth
Climate Change Awareness & Action

Justin Williams
Owner
CNY Solar

Katherine M. Burns
Chair, Climate Justice Committee
CNY Solidarity Coalition

Michel Lee, Esq.
Chairman
Council on Intelligent Energy & Conservation Policy (CIECP)

Melissa Kemp
Policy Director, Northeast
Cypress Creek Renewables

Marie McRae
Spokesperson
Dryden Resource Awareness Coalition

Daniel Green
Director
Delaware River Solar

Jeff Weiss
Managing Director
DIstributed Sun

David Schieren
CEO
Empower Solar

Alex Beauchamp
Northeast Region Director
Food & Water Watch and Food & Water Action

Irene Weiser
Coordinator
Fossil Free Tompkins

Diane Brandli
President
GreeningUSA

Matt Vanderbrook
Director of Commercial Origination
Green Spark Solar

Arthur Perri
Chair
Long Island Solar Energy Industry Association (LISEIA)

Lisa Tyson
Director
Long Island Progressive Coalition Director

Lisa Marshall
Community Organizer
Mothers Out Front New York

Elisa Evett
Volunteer and co-chair
Mothers Out Front Finger Lakes

Kyle E. Thomas
Principle
Natural Systems Engineering

Kartik Amarnath
Energy Planner
New York City Environmental Justice Alliance

Chris Neidl
New York City Solar Business Alliance (NYCSBA)

Jonathan Westin
Director
New York Communities for Change (NYCC)

Shiva Prakash
Equal Justice Works Fellow sponsored by Akin Gump Strauss Hauer & Feld
New York Lawyers for the Public Interest (NYLPI)

Dan Hendrick
President
New York Solar Energy Industry Association (NYSEIA)

Bob Rossi
Executive Director
New York Sustainable Business Council (NYSBC)

Jonathan Bix
Executive Director
Nobody Leaves Mid-Hudson

Claude S. Copeland, Jr.
Climate Justice Organizer
Northwest Bronx Community and Clergy Coalition

Blair Horner
Executive Director
NYPIRG

Karl R. Rábago
Executive Director
Pace Energy and Climate Center

Sandy Steubing
Co-Facilitator
People of Albany United for Safe Energy (PAUSE)

Susan Shapiro, Esq.
Director
Promoting Health and Sustainable Energy (PHASE)

Rahwa Ghirmatzion
Deputy Director
PUSH Buffalo

Kate Millar
Vice President of Project Development
Renovus Energy

Roger Downs
Conservation Director
Sierra Club Atlantic Chapter

Kelly Roache
Director of Inclusion
Solstice

Larysa Dyrszka
Sullivan Area Citizens for Responsible Energy Development

George Billard
Co-Founder
Sullivan County Residents Against Millennium (SCRAM)

Andy Mager
Sales Manager and Social Movements Liaison
Syracuse Cultural Workers

Carol Baum
Syracuse Peace Council

Gwen Chaffin
Community Organizer
Syracuse United Neighbors

Sarah Woodside Gallagher
President
Upper Green Side

Janet Handel
President
Waterside Tenants Association in New York City

Stephan Roundtree, Jr.
Environmental Policy and Advocacy Coordinator
WE ACT for Environmental Justice

Suzanne McMannis
Research Coordinator
Weaver Wind Energy

Kevin Cox
Project Developer
YSG Solar

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[1] This would apply statewide to all Investor Owned Utilities and Long Island. On Long Island, where no MTC is yet active but they have a future CDG transition credit planned, the MTC as described above would be created for all Customer Classes subject to VDER (demand-metered commercial customer-generators, demand-metered commercial participants in community distributed generation projects, and remote net metering hosts) and also for residential subscribers of community solar projects once the 94MWac cap of net-metering is reached.

[2] Please note that one should use the SCC menu and technical guidance created by the Interagency Working Group (IWG) formed in 2009 and last updated in 2016 because it is extensively peer reviewed and represents experts from a dozen federal agencies and White House offices. The Trump Administration disbanded the IWG in 2017 and agencies are now using different values, but none of the new values have gone through a thorough vetting and scientific review process and very little support for them has been given.

[3] The significant damages excluded from or poorly quantified in the models include ocean acidification, wildfire damage, wildlife habitat and species extinction, impacts of mass migration, and catastrophic impacts and tipping points including rapid sea level rise, methane releases from permafrost, and damages at very high temperatures.